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10/620,615

07/17/2003

Hiroshi Oyama

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10/05/2006

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EXAMINER

PRICE, NATHAN E

ART UNIT

PAPER NUMBER

2194

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|--------------------------------------|-------------------------------------|
| Office Action Summary | Application No. 10/620,615 | Applicant(s) OYAMA ET AL. |
| | Examiner Nathan Price | Art Unit 2194 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2003 and 01 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

1. Claims 1 – 6 are pending.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

3. Claims 1 – 6 are objected to because of the following informalities:
There is a lack of antecedent basis for “each function” in line 6 of claims 1 – 4 and line 5 of claim 5. Claim 6 inherits the deficiencies of claim 5. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 – 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Two interface definition languages are introduced in lines 3 – 4 of claims 1 – 4 and lines 2 – 3 of claim 5. It is not clear which IDL is referenced by “the interface definition language” after the second IDL is introduced.

As to claim 3, it is not clear if the means for inputting and outputting arguments and return values is optional because the claim specifies “when” these are present in the circuits. Furthermore, in the last paragraph of claim 3, it is not clear which circuit (client or server) has the means for outputting and inputting a return value, or if both circuits have both capabilities and it is not clear what is meant by “at least of the” in the last paragraph. For the remainder of this Office Action, claim 3 will be treated as if it states, “at least one of the” in line 2 of the last paragraph.

Furthermore, it is not clear what is meant by “realizing the comprises” in line 7 of claim 5. Claim 5 will be treated as if it states, “realizing the interface comprises” for the remainder of this Office Action. Claim 6 inherits the deficiencies of claim 5.

As to claim 6, it does not appear that the connection terminal needs to be connected with the server interface device. Therefore, the last paragraph is not clear as to how the central processing device serves in place of the device if the server interface circuit does not need to be connected to anything.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 – 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Schofield (US 6,308,225 B1).

As to claims 1 – 3, Schofield teaches an interface method for a logical circuit comprising a logical operation element, said method comprising the step of:

[claims 1 – 3] defining an interface, using an interface definition language which is partly common to an interface definition language directed to a software object and has means for defining a function name, an argument, and a return value for each function [col. 2 lines 45 – 65; col. 3 lines 12 – 32, 54 – 65; col. 5 lines 6 – 13; col. 8 lines 12 – 22],

wherein the logical circuit comprises

[claims 1 and 3] a server logical circuit, as a server interface circuit for realizing the interface, having at least means for inputting for identifying a function name defined by the interface definition language among the means for inputting for identifying a function name defined by the interface definition language, means for inputting and outputting an argument, and means for outputting a return value [col. 2 lines 45 – 65; col. 3 line 54 – col. 4 line 7; col. 8 lines 12 – 22], and

[claims 2 and 3] a client logical circuit, as a client interface circuit for realizing the interface, having at least means for outputting for identifying a function name defined by the interface definition language among the means for outputting for identifying a function name defined by the interface definition language, means for inputting and

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outputting an argument, and means for inputting a return value [col. 2 lines 45 – 65; col. 3 line 54 – col. 4 line 7; col. 8 lines 12 – 22], and

[claim 3] data can be transferred from the means for outputting for identifying a function name of the client logical circuit to the means for inputting for identifying a function name of the server logical circuit [col. 3 line 54 – col. 4 line 7],

[claim 3] when the server logical circuit and the client logical circuit have the means for inputting and outputting an argument, data can be transferred between the means for inputting and outputting an argument of the server logical circuit and means for inputting and outputting an argument of the client logical circuit [col. 2 lines 45 – 65; col. 3 line 54 – col. 4 line 7], and

[claim 3] when the server logical circuit and the client logical circuit have at least one of the means for outputting a return value and the means for inputting a return value, data can be transferred from the means for outputting a return value to the means for inputting a return value [col. 2 lines 45 – 65; col. 3 line 54 – col. 4 line 7].

Although the limitations are not identical, the citations for limitations of claim 3 are applicable to similar limitations of claims 1 and 2.

As to claims 4 and 5, see the rejection of claims 1 – 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schofield as applied to claim 5 above, and further in view of Harjanto (US 7,058,956 B1).

As to claim 6, Schofield teaches that:

the client interface circuit has a connection terminal [Fig. 1, client computer 21 connects to the network 12; col. 3 line 54 – col. 4 line 7],

the connection terminal of the client interface is connectable to either the server interface circuit or a system bus [col. 3 line 54 – col. 4 line 7; col. 4 lines 55 – 59], and

when the connection terminal of the client interface is connected to the server interface circuit, the device connected with the server interface circuit is drivable via the server interface circuit [col. 3 line 54 – col. 4 line 7, in sending a response, the server drives the device].

Schofield fails to specifically teach that the client interface circuit has a register, the system bus connection as claimed (although a block diagram of a computer is shown in figure 1 with the CLIENT APPLICATION 77 in memory 23 connected to CPU 27) or reading a value from the register via a central processing device. However, Harjanto teaches that the client interface circuit has a register [col. 3 lines 22 – 40], that the connection terminal can be connected to a system bus [Harjanto: Fig. 1, SYSTEM MEMORY 22 is connected to SYSTEM BUS 23, (Schofield shows the CLIENT

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APPLICATION 77 in memory in Fig. 1)] and when the connection terminal of the client interface is connected to the system bus, a value of the register within the client interface can be read via a central processing device such that the central processing device can server in the place of the device connected with the server interface circuit [Fig. 1 PROCESSING UNIT 21; col. 3 lines 22 – 40, the processing unit processes data stored in memory or registers]. It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these references because both Schofield and Harjanto teach use of distributed objects [Schofield: abstract; Harjanto: col. 6 lines 10 – 17] and in addition to providing extensions for service interfaces [Harjanto: abstract], Harjanto also provides some lower level hardware details to explain how the computers work [col. 3 lines 22 – 40], providing greater understanding of how the hardware disclosed by Schofield operates.

Conclusion

7. The prior art made of record on the P.T.O. 892 that has not been relied upon is considered pertinent to applicant's disclosure. Careful consideration of the cited art is required prior to responding to this Office Action, see 37 C.F.R. 1.111(c).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Price whose telephone number is (571) 272-4196. The examiner can normally be reached on 7:30am - 4:00pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NP


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SUPERVISORY PATENT EXAMINER